

CHARGE NUMBER: 2105

PROJECT TITLE: FILTER DEVELOPMENT

PROJECT LEADER: W. A. NICHOLS

PERIOD COVERED: OCTOBER, 1985

I. Filter Development - FML (W. Nichols)

Objective:

To develop the technology to manufacture filters from FML polypropylene tow.

Status:

A production order of 168,000 filter rods was completed and shipped to India. Additional orders have been received from Brazil, Canada, and Australia.

The correlation between plugmaker efficiency and tow quality continues to be studied. Analysis of the energy required to fibrillate the film during tow production shows that minimum energy conditions cause plugmaking problems. Strip chart recordings are being used to monitor and eliminate the shipment of poor quality tow.

Installation of a newly designed crimper has produced a great change in crimp regularity. A convergent stuffer box design appears to make a more uniform crimp. Tow evaluations will begin shortly.

Installation of a new garniture and heater bar is yielding circumference control equivalent to KDF-2 standards.

Analysis of tow produced on the new extrusion line shows a trend for reduced variation in RTD. Additional sampling is being done to confirm the data.

Plans:

Improve plugmaker efficiency to 85% November, 1985

Prepare samples for additional market evaluation Continuous

II. Menthol Application (G. Patron)

Objective:

Assist in the introduction of menthol on foil into production.

Status:

Aging study of the Louisville factory produced Marlboro Menthol standard production and menthol on foil cigarettes are continuing. After seven weeks of lab storage, all the controls and two test models showed consistently uniform menthol characteristics. Menthol delivery in smoke was lowered by 0.04 mg/cig. from the original fresh cigarette values of 0.66 to 0.70 mg. Several cartons of cigarette were stored in the desert room. After two days of desert room storage, the smoke delivery was reduced down to 0.52 to 0.54 mg per cigarette while total menthol in the cigarette has remained constant. Menthol in TPM per puff for each model was characteristically the same.

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Menthol Application Cont'd

The cigarettes were submitted to PED for in-house panel testing. Test results showed that there was no significant difference in liking and on good menthol taste between the conventional production menthol and the menthol on foil cigarettes.

The second machine being built by Engineering and undergoing electrical and mechanical evaluation is complete. It is scheduled to be transferred to R&D in mid-November for our use in product testing.

Plans:

Assist Engineering and LMCP during machine start up November, 1985

Train Louisville personnel December, 1985

III. Tobacco Extrusion (R. Thesing)Objective:

To develop an extruded foam tobacco product meeting Focus Goal One requirements.

Status:

New extruded models are being fabricated for internal panel testing. An unflavored rod will be machine tipped to a series of three (3) different filter designs:

- 1) a dual filter of CA (15 mm) & Dunhill Lts. (12 mm)
- 2) a dual filter of CA (15 mm) & charcoal on tow (12 mm)
- 3) a 27 mm whistle through filter

Samples will be available the week of November 11th.

Samples subjectively evaluated with Avicel (microcrystalline cellulose), replacing a portion of the wheat starch were found to be subjectively better than the control and also improved hot collapse.

Plans:

Phase II Production Line 4th Qtr., 1985

Subjective Evaluation Continuous

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W. A. Nichols